

Claims

1. Communication terminal (11) comprising a housing (12), a user interface (13,14) on a front side (20) of the housing, said housing carrying therein a radio antenna element (27), a PCB (24) including a ground plane extending longitudinally through the terminal behind said user interface, a speaker (16), and a chamber (21) acting as an electromagnetic resonance cavity for the antenna and as an acoustic resonance cavity for the speaker, wherein said speaker is mounted inside said chamber, **characterised in** that said speaker is placed behind said PCB and behind said user interface as seen from said front side, wherein an opening (28) is formed in said PCB at the speaker, and wherein a sound channel (22) extends from said opening longitudinally in the terminal between said PCB and said user interface, and includes a bent portion (23), such that the sound channel bends around said user interface at an end portion of the terminal, and extends at a channel front outlet (17) substantially perpendicular to said front side.

2. The communication terminal as recited in claim 1, **characterised in** that said sound channel further has a channel top outlet (19) extending in a substantially longitudinal direction of the terminal at a top side of said housing.

3. The communication terminal as recited in claim 1, **characterised in** that said user interface is a display (13).

4. The communication terminal as recited in claim 1, **characterised in** that said user interface is a key pad (14).

5. The communication terminal as recited in any of the previous claims, **characterised in** that said ground plane (24) defines a wall part of the chamber, through which wall part said sound channel outlet extends.

6. The communication terminal as recited in any of the previous claims, **characterised in** that said chamber is sealed (26).

7. The communication terminal as recited in any of the previous claims, **characterised in** that said chamber has a substantially rectangular box shape.

8. The communication terminal as recited in any of the previous claims, **characterised in** that said antenna element comprises a substantially flat pattern of conductive material on a wall (29) of said chamber.

9. The communication terminal as recited in any of the previous claims, **characterised in** that said speaker is devised to convey audio information such as speech to a terminal user.

5

10. The communication terminal as recited in any of the previous claims, **characterised in** that said speaker is devised to act as a ringer by transmitting a predetermined sound signal to bring a user's attention to the terminal.

10 11. The communication terminal as recited in any of the claims 1 - 9, **characterised in** that said speaker comprises a buzzer devised to act as a ringer by transmitting a predetermined sound signal to bring a user's attention to the terminal.

15 12. The communication terminal as recited in any of the claims 1 - 9, **characterised in** that said speaker is a multi mode actuator devised to act as a ringer and as a vibrator by transmitting predetermined sound signals or vibrations to bring a user's attention to the terminal.

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